

Santa Rosa County

Sprinkler Plan Review Submittal Checklist

Project Name _____ Project Address _____
 Contractor Name _____ Contractor Address _____
 State License No. _____ Expiration Date _____

Classification of Occupancy:

- ☐ NFPA 13, 1999 edition
- ☐ Light Hazard ☐ Ordinary Hazard ☐ Extra Hazard
- ☐ Group I ☐ Group I
- ☐ Group II ☐ Group II
- ☐ Storage Classification Figure _____ ☐ Curve _____
- ☐ Other (Specify in detail, attach sheets if needed) See [NFPA 13:Chapter 1 and Chapter 7](#).

NOTE: Working plans shall be submitted for approval before any equipment is installed or remodeled. Any deviation from approved plans, any change, or tenant improvement will require revision and resubmittal before final approval will be given. Working plans shall be drawn to an indicated scale on sheets of uniform size, with a plan of each system, or floor area, and shall show these items from the following list that pertains to the design of the system.

Failure to complete this form entirely or accurately will result in rejection of submittal!

	Item	<i>All code references are to NFPA 13 1999 edition, unless noted otherwise.</i>	Yes	No	N/A
1	Has equipment submittal been provided and does it contain all information on all equipment to be used on system and/or building? The working plan shall include manufacturer's installation instructions for any specifically listed equipment, including descriptions, applications and limitations for any sprinklers, devices, piping, or fittings.				
2	Are <i>Quick Response</i> sprinklers used throughout? Specify type.				
	A. Is the system <i>Wet</i> ?				
	B. <input type="checkbox"/> Light or <input type="checkbox"/> Ordinary Hazard Occupancy?				
	C. 20 ft. Maximum ceiling height?				
	D. Total number of sprinklers in design area at least 5?				
	E. Has a 30% area increase been applied for dry system? See 7-2.3.2.6				
	F. Has a 30% area increase per 7-2.3.2.5 been applied on sloped ceilings with a pitch exceeding 2 inches on 12 inches? Note and show all pitched roof areas on drawings.				
	G. Has figure 7-2.3.2.4 been applied? If yes, state ceiling height and permitted percent reduction to design area. Also include any increase from item E if applicable to design.				
3	Is there any storage over 12'-0" or do any specific rulings apply? (Specify in detail, attach sheets if needed). F.M., I.R.I., etc. NOTE: Any specific ruling shall as a minimum comply with NFPA standards.				
	A. Show racks and high pile storage details and head placement.				
	B. Show cross section(s) as required for clarity. Specify in detail.				
	C. Does the building contain any materials classified as hazardous? Show <i>WHERE</i> these materials will be stored and <i>HOW</i> it will be stored, rack, palletized, bin box, shelf, etc.				
	D. Have MSDS sheets been provided for all hazardous materials to be stored?				
	E. Are there any materials stored in which water cannot be used as an extinguishing agent? Be specific, attach sheets if needed.				
4	Is the protection area per sprinkler within the requirements of the appropriate hazard classification and head listing? See 5-6.2.2 for SSP and SSU sprinklers. See 5-7.2.2 for standard sidewall sprinklers. See 5-7.2.2 for EC heads. Be specific, attach manufacturers data for any specific listings.				

	Item		Yes	No	N/A
5	Does the Minimum and Maximum sprinkler spacing requirements adhere to NFPA 13 and specific head listing requirements? See 5-6 for SSP and SSU sprinklers. See 5-7.3 for sidewall sprinklers. See 5-8.2 for EC heads. Also see 5-5. Attach manufacturers data for any specific listings.				
6	Are end sprinklers and end branch line sprinklers within the allowable distances from walls? See 5-6.3.2 for SSP and SSU. See 5-7.3.2 for sidewall heads. See 5-8.3.2 for EC heads.				
7	Does head spacing comply with requirements for the construction type, Obstructed or Unobstructed, (be specific, attach sheets if needed)? See 1-4.6 Construction definitions.				
8	Are sprinklers positioned within allowable distances to ceilings? See 5-6.4 for SSU and SSP. See 5-7.4 for standard sidewall sprinklers. See 5-8.4 for EC heads. Also see 5-5. NOTE: Show cross section as required for clarity.				
9	Are clearances to any obstructions, such as soffits, beams, light fixtures, ceiling slope, etc. properly allowed for? Show cross section as required for clarity. Show exposed beams with dotted lines along with appropriate details drawn to scale See NFPA 13 chapter 5.				
	A. Is head placement clearly indicated in relation to beams and ceilings?				
	B. Are sloped ceilings clearly indicated on drawings with the slope indicated?				
	C. Is there a note on drawings that reads: "Ceilings are flat unless noted otherwise".?				
10	Are there any combustible concealed spaces within the building or system area 3-13.1.				
11	Are any questionable small enclosures in areas in which no sprinklers are to be installed clearly indicated on the drawings? See NFPA 13 Chapter 5.				
12	Has a separate reflected ceiling plan been provided which contains no piping or hanger details and contains proper information such as suspended ceiling construction, areas where exposed construction exist, ceiling heights, with elevation changes, light fixture locations, columns, HVAC diffuser and return air grill locations, sprinkler head locations, etc.? (See item number 9 for slope ceiling instructions.)				
13	Has the location of any and all firewalls been shown?				
14	Has the location of partitions and walls which do not extend all the way to the ceiling been shown including height in relation to ceiling? Provide cross section or elevation plan if needed.				
15	Are floor openings such as escalator openings properly protected and shown on plan view? Provide cross section as required for clarity.				
16	Has the occupancy of each area and/or room been properly noted?				
17	Has the square footage of all area/rooms been properly noted?				
18	If the <i>small room rule</i> has been used, have areas/rooms been properly noted and do they meet all of the following conditions? See 1-4.2 and 5-6.3.2.1.				
	A. Light Hazard Occupancy?				
	B. Unobstructed construction?				
	C. Floor area of 800 square feet or less??				
19	Has a full height cross section or schematic diagram, including ceiling construction been included?				
20	Is the building or system properly heated throughout?				
21	If heat is not provided, is proper system provided to protect system from freezing (including riser room for dry pipe systems)? NOTE: Dry sprinkler systems should only be installed where heat is not adequate to prevent freezing. Show all freeze areas on drawings and indicate how freezing will be prevented				
22	Are there any exterior docks, canopies, or platforms that will require sprinkler protection? See 5-13.8.				
23	If any antifreeze systems are being installed are the following conditions being met? See 4-5.				
	A. Is the type and quantity of antifreeze indicated?				
	B. Is antifreeze loop detail shown?				
	C. Is Glycerin USP being used in CPVC piping?				

	Item		Yes	No	N/A
		Are elevators protected in accordance with NFPA 13 and any Local or State guidelines? See 5-13.6			
24		A. Is there any sprinkler piping in the machine room or hoistway other than the piping feeding a head?			
		B. Have indicating type shut off valves for each branch line been provided in an accessible location outside of machine rooms or hoistways?			
		C. Will an approved method be provided to automatically disconnect the main line power supply to the affected elevator(s) prior to the application of water?			
		D. Has the proper temperature sprinklers been provided?			
25		Is there any sprinkler piping located in electrical rooms that does not directly feed a sprinkler head?			
		A. Is any sprinkler piping routed above electrical panels?			
		Has a proper site plan been provided?			
26		A. Does site plan show size of city main on street, and whether dead end or circulating? If dead end, is distance shown to nearest circulation main?			
		B. Have existing underground main sizes, type, and location been properly noted and shown?			
		C. Have new underground main sizes, type, location, and connection been properly noted and shown?			
		D. Has the location of new valves, backflow preventers, valve pits, meters, and FDCs been indicated? Specify manufacturer, size, and type of all valves on drawings. Include equipment submittals.			
27		Have flow test results been properly provided to include the date and time, static psi, residual psi, flowing gpm, and elevations at source and building been clearly indicated??			
		A. Have other sources of water supply, such as a fire pump, tank, or reservoir been duly noted and considered?			
28		Have make, type, finish, and nominal orifice size of all sprinklers used on system been proper noted and shown on piping and/or reflected ceiling plan.? Equipment submittal shall include data on every sprinkler used on system. Note: Systems with any special application sprinklers or residential sprinklers shall include all listing information, limitations, restrictions, flow (gpm), and pressures (psi) shall be either noted on plans or have manufacturer's data sheets attached to all sets submitted.			
		A. Are sprinklers the proper temperature rating for the minimum expected ceiling temperatures and proximity to unit heaters, sky lights, HVAC diffusers, light fixtures, etc. accounted for? See 5-3.1.4 .			
		B. Total number of sprinklers on each riser per floor?			
29		Is the Total Area per System indicated on drawings?			
30		Is the make, type, model, and size of alarm and dry valves been indicated on drawings and included in the equipment submittal?			
31		Is the total number of sprinklers on each dry pipe system, pre-action system, deluge system, combined dry pipe/pre-action system indicated? See 4-3 and 4-4			
		A. Is the total capacity of dry systems indicated? See 4-2.3 .			
		B. Does the system require a quick opening device? See 4-2.4 .			
		C. Does the system volume fall within specified limits? See 4-2.3.1 .			
32		Are the types of pipe and schedule indicated?			
33		Will any pipe be required to be bent? If so, submit equipment data with tolerances. See 8-3.6			
34		Are all pipe joining techniques correct for type and schedule used? See 8-6			
35		Are fitting pressure ratings correct for system design? See 8-8.1.2 .			
36		Are there any special piping materials to be used, such as galvanized pipe, threadable thinwall, Poz-lok, CPVC, etc.? Be specific and include submittal data. See 3-3.5			
37		Will any type corrosion protection be required for any piping located within system area? Be specific. See 5-14.3.2.1			

	Item		Yes	No	N/A
38	Are nominal pipe sizes and cut lengths of pipe or center-center dimensions shown?				
39	Has the location of all riser nipples and drop nipples been provided?				
40	Are any specialty fittings being utilized such as Press-fit, etc.? Include submittal data.				
41	Has the type and location of hangers, sleeves, braces, and methods of securing pipe been provided? Include legible details on drawings of each type.? Be specific. See 6-1 .				
42	Are locations of all control valves, check valves, drainpipes, and test connections clearly indicated on plans?				
43	Are all system control valves properly supervised per all applicable codes?				
44	Has the system test connection been properly located?				
45	Are proper system drain connections, both main and auxiliary, provided and properly sized? See 5-14.2.4				
46	Is the discharge for drains and test connections piped to an acceptable and approved area that will not cause water damage? See 5-14.2.4 .				
47	Is the type and location of alarm(s) indicated on the drawings?				
48	Is the type and location of the fire department connection shown in detail and comply with the requirements of 3-9 and 5-15.2.1 ?				
49	If a relief valve is required, is it provided and properly located? See 4-1.2 .				
50	Is the size and location of hose outlets and, hand hose, and related equipment provided? Submittal data required for all pressure reducing valves including maximum inlet pressure and outlet pressure at each valve. See 5-15.5.1.2 .				
		A. Are standpipes provided in accordance with <i>The Standard Building Code</i> and NFPA 14 ?			
		B. Is a permanent drain riser installed to test pressure regulating devices accordance with NFPA 14 5-11 ?			
		C. Are standpipes calculated in accordance with all applicable codes?			
51	Is a graphic representation of scale shown on the drawing? On each sheet if multiple sheets?				
52	Have provisions for flushing been provided? See 5-13.17 .				
53	When the equipment to be installed as an addition to an existing system, is enough of the existing system shown on the plans to make all conditions clear?				
53	Is a fire pump provided?				
		A. Will the fire pump meet the system demand without using more than 100% of the rated capacity? Example: If there are 2 standpipes to calculate (500gpm+250gpm), is the pump rated at 750 gpm from the manufacturer? Provide submittal data.			
		B. Is the Suction piping sized per NFPA 20 Table 2-20 ?			
		C. Is a main relief valve provided and discharge piping sized per NFPA 20 Table 2-20 ? If a MRV is not provided, submit calculations to show that maximum static pressure will not exceed 175 psi.			
		D. Is the test header sized correctly with the proper number of test valves? See NFPA 20 Table 2-20 .			
		E. Is the FDC on the discharge side of the fire pump? See NFPA 13 5-15.2.3.6 .			
54	Is the system(s) calculated per NFPA 13?				
		A. Is the information required on the hydraulic data plate indicated on the calculations or on the plans?			
		B. Do hydraulic reference points on the drawings correspond with comparable reference points on the hydraulic calculations?			
		C. Has the minimum rate of water application(density), the design area of water application, in rack sprinkler demand, and the water required for hose streams both inside and out been calculated?			
		D. Have relative elevations of sprinklers, junction points, and supply or reference points been indicated?			

	Item		Yes	No	N/A
54		E. If the room design method is used, are all of the conditions in 7-2.3.3 met?			
		F. Has the proper pressure loss for any backflow preventers or meters been allowed for in the calculations?			
	Is the proper hydraulic information provided? Note: Hydraulic calculations shall include a summary sheet, detailed work sheets, and a graph sheet per Chapter 7 .				
55		A. Is the area per sprinkler indicated?			
		B. When area/design method is used, the area of sprinkler operation (the hydraulically most demanding area) shall be based on floor area. The designer must graphically show this. For example, a 1500 square feet area of sprinkler operation must show 1500 square feet of floor area. If this is not shown to the satisfaction of the plan reviewer, calculations and plans will be rejected for revision and re-submittal. Is the area of sprinkler operation shall be properly sized and located?			
		C. Has the correct K factor been provided? Note: If sprinklers do not attach directly to a branchline and a riser or drop nipple is used, the K factor shall be adjusted accordingly.			
		D. Has the minimum flow and discharge been provided? Note: Where area per sprinkler varies, such as in a partitioned office area, the area per sprinkler shall be noted for all sprinklers in the area of operation. Keep in mind that the area of sprinkler operation (the hydraulically most demanding area) must reflect what is supposed to be the most demanding area. For example, a system with an area of sprinkler discharge with a light hazard density which has all sprinklers covering no more than 150 square feet per head; however an observation of the entire system reveals sprinklers that area are spaced from 200 to 225 square feet. This increases pressure and flow; in other words, most demanding does not necessarily mean the most remote. If any questions exist, provide additional calculations to prove the hydraulically most demanding area			
56		E. Does pipe sizing in the most hydraulically demanding area reflect sizing throughout the remainder of the system? If not, provide proof calcs for the areas with different sizing.			
		F. Are any gridded systems in full compliance with NFPA 13: 6-4.4.2 .			
		G. Is there a minimum 5 psi safety factor for all systems?			
57	Is complete sprinkler protection provided?				
58	Are there any deviations from referenced NFPA Standards? Note: If yes, describe in detail (attach sheets if needed).				
60	Will all materials installed be NEW and UL or FM listed for fire service?				

As sprinkler plan submitter, I hereby acknowledge that all information provided is to the best of my knowledge correct and accurate. As the person making application for permit, I hereby acknowledge all requirements and inspections contained therein. By my receiving, I also acknowledge that any changes or revisions to approved plans will require revision and resubmittal as required. Failure to comply with the provisions of issued permit could result in loss of permit an unnecessary delays.

Signature _____

Title _____

Company _____

Date _____